

Officials address concerns of methane gas detected near school

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As new orange fencing stands between students of Manor View Elementary School and their playground, several parents said they were assured by environmental officials here that they are taking precautions to ensure their children are safe despite levels of methane gas discovered in the nearby field.

The gas and other volatile organic compounds were detected in a former dump site adjacent to the Potomac Place housing area and southwest of the 30-year-old school.

"I think they're giving us the answers they have," said Tracy Curran, PTA president. "I keep getting phone calls from other parents. But as long as they disseminate information, I'll be happy."

Curran was one of a dozen people who attended a public informational meeting in the school library on Dec. 12. The meeting was led by Lt. Col. Rodney Gettig, director of the Directorate of Public Works at Fort Meade, and Michael "Mick" Butler, chief of the installation's Environmental Management Office (EMO).

The 60-year-old dump site was discovered in February 2003 while trees were being cleared by Picerne Military Housing, which had leased the area from the Army for new home construction.

"We immediately stopped work, fenced off the area and followed all instructions from the Army's environmental experts and the Maryland Department of the Environment," said Bill Mulvey of Picerne.

The site was identified as a non-hazardous dump site; excavated material was returned to its former location. Preliminary environmental samplings were taken and indicated no presence of methane and radioactivity. The waste was then covered with fill.

In April 2003, Picerne paid for an environmental investigation to determine the extent of the dump site and where on the land they could safely build. The company moved its development outside the dump site's perimeters.

"We repositioned town homes and roadways after all tests were completed and the area was determined not to be a hazard by the Army's and the state's environmental inspectors," Mulvey said. "There were no safety issues at the time. The Maryland Department of the Environment approved our site plan after the redesign."

In April 2003, the Army immediately followed with an investigation onto the school grounds to determine the extent of the dump site. The results of this investigation were

reported to the Environmental Protection Agency and the Maryland Department of the Environment (MDE).

After reviewing the results, the Army, EPA and MDE agreed the additional investigation was required to more clearly define the contamination and gases associated with landfills and complete a comprehensive environmental risk assessment of the collected data.

The field work to collect this additional data took place from June through November. Soil gas samples were obtained from a probe placed 2 to 5 feet into the ground to extract vapors from the soil. Thirty-one soil gas probe locations were evaluated on the four-acre site. A network of monitoring wells encircling the dump site were placed into the ground to test the ground water.

On Dec. 8, URS Inc. notified the Army that while going over preliminary laboratory results of soil and vapor samples, they had found evidence of methane gas and volatile organic compounds. The data revealed that some exceeded the lower explosive limit of methane at 2-to-5 feet in the ground and 30-40 feet off the back of the homes.

The surrounding homes were checked Dec. 9 for methane gas, while the school check began the following day. "If there is an ignition source, methane gas in a confined space can cause a fire," Butler said.

But when the mechanical closets in the adjacent 20 homes were checked for methane gas, none was found. "We decided to do a daily monitoring to be safe," Butler said.

The U.S. Army Center for Health Promotion and Preventive Medicine-North (CHHPM) personnel then went into the crawl space areas in the school. Results from inside the homes and school were negative. For safety reasons, fencing extending from the back of the school across the field to the housing area went up Dec. 15. "Fencing was a tough decision," Gettig said. "But we have more tests to do. We just want to keep people out of the area."

Methane/natural gas is colorless and odorless. Methane that forms underground is eventually released into the air and disperses quickly. The gas may migrate above or below ground. But because methane is lighter than air, the gas tends to rise.

Further tests results will measure for contamination in soil and water, and be used to prepare an environmental risk assessment, they are still being evaluated at the laboratory. "But the immediate risk is methane," Butler said.

They also will check inside the school. "The prudent step is to ensure safety and allow us to gather more information," Gettig said. By Dec. 20, methane detection units were being installed in all 20 homes in the affected area and will be installed in the school this week.

Dan LaHart, an environmentalist with Anne Arundel County Schools, said at the meeting that school officials are working closely with the Army. "We're taking every reasonable precaution to make sure your kids and the staff are safe," he said.

Gettig and Butler later fielded questions from parents such as concerns about the school's drinking water. But Gettig said that the water people drink on post is from a different water supply, on the other side of post. "The water they drink is not from here," he said. "We do 60,000 checks per year, both at the source, the water plant, and at homes."

Gettig, who said his daughter is a student at Manor View, also reassured parents that methane does not pose a cancer threat. "Breathing methane is not going to harm you," he said. "The concern is high enough levels of methane causing asphyxiation, or worse, and explosion if an ignition source is present."

The methane, explained Gettig, is potentially dangerous if it is leaking in a confined space without ventilation. So methane gas is little threat outdoors where it can rise and dissipate into the air.

Methane levels at the school and residences will continue to be monitored.

But Gettig said it was premature to predict what will happen. "We have to collect additional data," he said. "The process could take several months."

But once more information is obtained, said Gettig, another public meeting will be held.